

THE NEW M. A. CURRICULUM FOR LIBRARIANSHIP AND INFORMATION SCIENCE: THE REPORT OF A RESEARCH PROJECT

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Abstract - This article is a short report of a research project carried out, upon the recommendation of the Ministry of Science, Research and Technology, by the Department of Librarianship and Information Science of Meshed Ferdowsi University between 2003-2004. The goal was to study and revise the current curriculum to bring it closer to the changing needs of the present society. The curricula of the U.S.A., England, Australia, India and Iran were reviewed and compared with the objective of introducing a new syllabus for the two fields of Information Management and IT Management. The new curriculum was sent to some experts and faculty members of the departments of Librarianship and Information Science of Iran that ran courses at M. A. level. They were asked to issue their comments on the curriculum. Then, the final version of the curriculum was verified after undergoing some revisions by the Revising Committee of Meshed Ferdowsi University. The new curriculum was also sent to the Ministry of Science, Research and Technology to be sent to universities after being approved by the Ministry.

Keywords: M. A. Curriculum for Librarianship and Information Science, Curriculum of Information Management, Curriculum of IT Management, Meshed Ferdowsi University.

THE NEED FOR REVISING THE M. A. CURRICULUM FOR LIBRARIANSHIP AND INFORMATION SCIENCE OF IRAN

Librarianship and Information Science deals with Information Management and Knowledge Management and aims at providing a suitable ground for effective and easy access to information. To get to this objective and based on the theoretical foundations of this discipline, processes are followed for selection, acquisition, organization and provision of information. To equip the staff of libraries and information centers with the practical and theoretical aspects of these processes, formal and informal courses especially at higher education levels have been introduced.

Modifying the curriculum (its content, syllabus, etc.) according to the real needs of the society is counted as one of the professional aspects of this Major. A review of foreign books and articles shows that such a revision is taken as an ordinary task in developed countries, and that such countries have witnessed a large number of such modifications

due to the drastic changes occurred in information processing technologies in the last two decades. This modification has even affected the names of courses. Unfortunately, such modifications were left unnoticed until recently.

During the past four decades, Librarianship and Information Science (at higher education levels) has been under drastic changes as it has been affected with a large number of problems. Changes occurred in the content of Persian books related to Librarianship and Information Science during the last decade is indicative of the fact that the curriculum modification program in Iran is affected by two factors:

1. Changes and modifications in the curricula of Librarianship and Information Science of other countries, particularly the U. S. A.
2. The publicity and extension of IT in Iran.

It should be noted that the root of the current curriculum for Librarianship lies in the program that American instructors introduced for Tehran University during the second half of 1960s. Another point is that the first instructors of Librarianship and Information Science in Iran took their degrees from the U.S.A. and thus were under the influence of the changes over there. Of course, this must not be taken as a negative point; because, different countries have different scientific capabilities and each has made improvements in a given area i.e., France in Law, Germany in Philosophy and the U.S.A. in Librarianship and Information Science are stronger than other countries. That is why changes in the curriculum of Librarianship in the U.S.A. have led to a change in the curriculum used in Iran.

It was stated before that the everincreasing publicity of IT in Iran was the second factor that encouraged revisions in the curriculum of Librarianship and Information Science in Iran. The emergence of new technology has changed the way libraries are run by librarians. For example, the need for basic cataloging and comprehensive collection building has reduced; the need for provision of electronic resources to users has increased, etc.

LITERATURE REVIEW

A review of the literature related to many university majors, including Librarianship and Information Science, in the last two decades indicates that a large number of articles, research reports and theses have reiterated the new for revising some university curricula. Such revision programs have already been discussed by a number of people, particularly faculty members of the departments of Librarianship and Information Science in the last two decades [5,14,15]. In Iran, problems related to Librarianship and Information Science have been investigated by Iranian researchers since its teaching was first started at Iranian universities. The article written by Ganjiyan [6] in 1974; the article of Ebrami [3] and also the articles written by Dayyani [1] and Kiyani [9] are illustrative of the importance

given to this Major and its problems by experts and its faculty members.

Now after thirty years, instructors of Librarianship and Information Science believe that because of the fast and deep changes occurred in IT and, consequently, in information environment, there is a need to revise and update the content of the curricula related to this Major. Fattahi [4] mentions the following points as necessary for the development of this discipline:

- Enhancing the status of theoretical knowledge
- Creative thought
- Increasing research potentials.

He also believes that these items must be incorporated in the curricula introduced and in the content of the courses.

Carrying out a comparative study between the educational systems of Librarianship and Information Science in different countries is another research approach adopted by some researchers. Morteza'ee [11], for example, compared the curricula of Librarianship and Information Science at higher education levels in England, America, India and Iran. In his study, he analyzed a number of factors such as: student skills required; use of IT in educational programs; the need for man power in the market and characteristics of educational programs. His work could be used successfully in designing new programs. In his another work [12] he designed a suitable educational program for M. A. level entitled, "The Curriculum of Librarianship and Information Science (Information sub-discipline)" which is based on the current needs of our country.

Mehrad [10] put forward the result of a research project, at Shiraz University, entitled, "The Curriculum of Information Management and Information & Communications Systems." In this research, he designed a curriculum while specifying obligatory and optional courses. Dayyani [2] reviewed the curricula related to Librarianship and Information Science exercised since 1967 in Iran.

A review of the literature reveals that one of the main problems departments of Librarianship and Information Science have already witnessed has been lack of enough modifications and changes based on the current needs of the society. These departments have often followed a traditional view and their faculty members have rarely revised the content and structure of their courses. This is while, such departments in developed countries have underwent revisions and modifications in order to survive [11]. The departments that did not undergo on time changes could not succeed in absorbing enough students and their graduated students had problems with finding a suitable job. Some of these departments were embedded into other departments and some were closed altogether [13]. Some departments that could revise their programs on time introduced new courses such as, "Distributed Information Systems", "Website Design" and "Network Management".

Many experts in Librarianship believe that at the moment two points should be taken

into account: (1) professional expectations and (2) needs and expectations of the academic society who are in urgent need of information to attain their educational and research objectives. That is exactly why some new courses were added at the two departments of Management and Computer sciences [11].

A review of courses introduced by departments of Librarianship, at M. A. level, depicts a number of points as follows: (1) the most important part of the reform program was that despite the large number of courses, some of them were never taught, and some were just taught for a short period of time. For example, Manuscriptology, a course related to the pre-revolution period, was just taught by Iraj Afshar at Tehran University for a short period of time. The course, Archive Management, a course related to the post-revolution period, was just taught at Tehran University and Meshed Ferdowsi University for a short time. Some courses were never taught anywhere, i.e. the course Public Libraries that were added to the post revolution curriculum.

Moreover, some optional courses were added to the sub-discipline of Information Science but were never taught, i.e. the Organization and Management of Document Centers and Specialized Libraries; Theory and Methods in Reference Services and finally National and International Information Centers are just three examples. This is maybe the result of four things: (1) Lack of enough evidence for justifying the applicability of such courses in the society, (2) Lack of suitable and relevant textbooks, (3) Lack of knowledgeable and motivated instructors and (4) Lack of enough number of students to take the course.

With regard to the second item above, four more points could be stated:

(1) A short period of time after the establishment of the departments of Librarianship and Information Science at Tehran University and Shiraz University, only Iranian instructors were active over there, (2) During the post-revolution period an emphasis was put on running the classes in Persian, (3) There was a resistance on the use of a language other than Persian in the classroom and (4) Purchasing non-Persian books from abroad was difficult because it needed foreign currencies. The result was that courses were tried to be taught for which Persian books were available on the market. Unfortunately, during and after the revolution there were few courses for which suitable materials were available in Persian.

As a result, changes of programs of Librarianship outside Iran, the everincreasing application of IT in Iranian libraries and lack of application of a number of courses in the curriculum of Librarianship and Information Science can all well justify the incentive to design a new curriculum.

- OBJECTIVES AND THEORETICAL FRAMEWORK OF THE STUDY

This study aimed at revising the curriculum for Librarianship and Information Science so that it would meet the current needs of the society in the areas of information environment

and new technologies. What the researchers had in mind was to pinpoint priorities of this Major at M. A. level with respect to the sub-disciplines needed, and the content of each sub-discipline. To design the objectives, the following points were taken into account and were used as the theoretical framework of the study:

1. Changes in information environment are quite often the result of developments and improvements made in computer and network technologies.
2. With the entrance of IT in libraries and information centers, there is a need for more technical knowledge to be used for programming services and designing information systems.
3. Libraries and information centers are in need of bright, creative and knowledgeable graduate students if they are to provide good services to an information-oriented society.
4. The fact that information centers are becoming larger necessitates the use of experienced staff in the areas of Information Management and IT.
5. There is a need to pay special attention to training students, at M.A. level, creatively and make them creative graduate students.

Those involved in the project agreed that strengthening the theoretical foundations of Librarianship and Information Science as well as practical skills related to the application of current technologies be included and emphasized in the new curriculum. All of the researchers involved agreed on the following points as the suitable and expected capabilities that M. A. students must be equipped with:

1. The ability to understand and analyze theories, concepts, situations, etc. in the area of Librarianship and Information Science and its related areas. (M.A. students are expected to be able to analyze problems of the field theoretically and practically so as to be able to know their major and profession better.)
 - Understanding the nature of information and information technologies and playing a role in supporting organizational, social, economic and cultural activities.
 - Understanding social and technological changes and fitting the information system to these changes.
 - Analyzing the information needs of individuals and institutions (governmental, scientific, educational ... needs).
2. The ability to establish, improve or extend information services through appropriate management and programming.
 - No doubt one of the most important points to be taken into account while training librarians, at M.A. level, is that the curriculum must enable them to be good managers and programmers in their profession. This ability embodies the following items:
 - The ability to design information systems (selection, organization and provision of information).

- The ability to evaluate information systems and services.
 - The ability to take advantage of IT to establish or expand user-oriented information services.
 - The ability to develop and improve strategies and policies adopted by institutions through exerting an appropriate management system.
3. The ability to know information systems and databases analytically and using them effectively.

Although a librarian, at B.A. level, may be able to use such databases, a librarian, at M.A. level, must also be able to know such information systems and databases effectively. He is also expected to be equipped with the following capabilities:

- Knowing and analyzing different information systems, networks and databases (general and specialized in terms of structure, content, search abilities, facilities related to data management, etc.
 - Designing or helping others to design websites for libraries and information centers while taking into account the contents, structures and capabilities required.
 - Helping designers of information systems and databases based on the knowledge librarians have about language of indexing, methods of identifying different fields, different types of reports expected from a database and designing a user-friendly interface.
4. The ability to carry out specialized research activities.

This is one of the points that enables us to make a distinction between M.A. and B.A. students of Librarianships. M.A. students are expected to carry out such research activities successfully because libraries and information centers and also the whole process of information management are all under the influence of a number of items. M.A. librarians must have the following capabilities:

- Carrying out research needed and related to specialized and technical problems.
 - Using texts, theories and findings of other disciplines in their research activities.
5. The ability to introduce a program for training the staff and users of libraries and information centers.

The expansion of new technologies, information systems, networks and databases has made the continuous training of staff and users more important. This is why librarians refer to themselves as the only right person to run training programs on information seeking behavior or the so called "information literacy". For this reason, the following skills must be included in the M.A. curriculum:

- The ability to know educational needs of employees.
- The ability to know educational needs of users, by presence and remote, in the area of information literacy.
- The ability to program and run training courses and workshops on information seeking

skills for the staff and the users.

- The ability to use different types of technologies with the objective of proposing educational programs.
- Assessment of proposed programs and writing reports about them.

If M.A. students are to be equipped with the above skills and capabilities, suitable and relevant courses (proposed by knowledgeable instructors) must be included in the curriculum. To propose such a curriculum, a number of steps were taken in the form of a research project.

RESEARCH METHOD AND IMPLEMENTATION

Because of the objectives of the study that emphasized on taking advantage of views of instructors teaching at M.A. level, it was decided to carry out the study in seven steps as follows:

1. First, each researcher (five researchers in all) studied the M.A. curriculum of one famous country and issued their reports. At the end of this stage a preliminary curriculum was prepared which emphasized on the expected abilities of students.
2. The preliminary curriculum was given to each of the five researchers who were asked to issue their views on the structure and content of the proposed program. The views were discussed in a number of meetings which resulted in a new curriculum for the major of Librarianship and Information Science (and its three sub-disciplines, i.e. Information Management, Information Technology and University Libraries). This curriculum followed a framework proposed by the High Council for Cultural Revolution.
3. The courses in the three sub-disciplines were distributed among the five researchers based on their specialties, experience and interest. They had to design a syllabus and introduce relevant textbooks. As a result, the syllabi and textbooks related to about 50 courses were prepared.
4. In the next step, the proposed curriculum together with the syllabi of the courses were given to 6 instructors at Tehran, Isfahan, Shiraz and Ahvaz Universities and were asked to assess the program in terms of its structures, content and syllabus.
5. The views received were used to revise the program. For example, the number of sub-disciplines reduced to 2 based on the idea that the content and courses of the sub-discipline of University Libraries could be embedded in the two sub-disciplines of Information Management and Information Technology. Moreover, some courses the contents of which could be covered in other courses were ruled out altogether. The syllabi of some courses were also changed. This resulted in a new curriculum.
6. After approval, the new curriculum was sent to the Commission for Programming in Ferdowsi University that sent the curriculum to two experts for assessment: one

expert in Librarianship, full professor, and one expert in Computer Science, Associate Professor.

7. Final revision: The curriculum was revised based on the views received. For example, following the recommendations of one of the evaluators, the name of the sub-discipline, "Information Technology" was changed to "Information Technology Management" to eliminate the existence of a single sub-discipline in two majors. Two courses were deleted altogether and one course moved from optional courses (of the two sub-disciplines) to obligatory specialized courses. After these revisions, the curriculum was resent to the Commission for Programming in the University and they sent it to the Ministry of Science, Research and Technology for ratification.

THE PROPOSED CURRICULUM (WITH ITS TWO SUB-DISCIPLINES)

The two sub-disciplines proposed for Librarianship and Information Science (M.A. level) and their objectives are as follows:

1. The sub-discipline of Information Management

The objective here is to train librarians who can (based on the changes in information environment and the information society) manage successfully processes like needs studies, selection and organization of information and provision of information services in different library types, especially university libraries, specialized libraries as well as information centers and systems. This necessitates that appropriate courses be added to the curriculum. All courses proposed for the curriculum are presented in Tables 2, 3, 4, 6 and 7. Some of the expected capabilities of students of this sub-discipline are as follows: programming and implementation of programs for different types of libraries and information centers. Carrying out research in the area of information management.

2. The sub-discipline of Information Technology Management

The objective of this sub-discipline is to train students who are able to make use of new technologies (software, new networks, new systems, instruments, etc.) and by this they can meet the needs of libraries, information centers and their users. The courses required for this sub-discipline have been mentioned in Table 2, 3, 5, 6 and 7. One of the expected capabilities of students of this sub-discipline is to carry out specialized and technical activities related to technologies used in libraries and information centers.

LENGTH OF THE PROGRAM, ITS STRUCTURE AND CONTENT

Following the approvals of the High Council for Cultural Revolution and the current laws of the Ministry of Science, Research and Technology, the length of the program was decided to be 2 years (4 semesters). The maximum length of the program is determined

based on the current laws and regulations of the Ministry. Each student must pass 32 credits in the aggregate. These courses are divided into basic, specialized obligatory, specialized optional, supplementary and compensatory based on the current program of the High Council for Cultural Revolution.

Table 1: Courses of the M.A. curriculum (number and type).

Column	Course Type	The whole Credits Required
1	Basic	4
2	Specialized obligatory	12
3	Specialized optional	8
4	Supplementary	8
5	Total courses while excluding compensatory courses for those with a B.A. degree other than librarianship	32
	Compensatory courses for those M.A. students with a B.A. degree other than librarianship	(5)

Table 2: Basic specialized courses for both sub-disciplines (4 credits).

Course Code	Course Name	Credit(s)	Hours (Theoretical)	Hours (Practical)	Prerequisites
301	Foundations of Information Science	2	34	-	-
303	Research Method	2	34	-	-

* These courses must obligatorily be taken by students in the first semester.

Table 3: Specialized obligatory courses for both sub-disciplines (12 credits).

Course Code	Course Name	Credit(S)	Hours (Theoretical)	Hours (Practical)	Prerequisites
334	Information Retrieval and Storage	2	34	-	-
340	Collection Management (in print and electronic sources)	2	17	-	301
313	Cataloging and Advanced Classification	2	17	17	301-304
335	Abstracting and Indexing (data representation)	2	17	17	301-304
341	Search in Information Sources	2	17	17	334
342	Internet and Information Networks	2	17	-	-

Table 4: Specialized optional courses for the sub-discipline of Information Management (8 credits must be selected by each student).

Course Code	Course Name	Credit(s)	Hours (Theoretical)	Hours (Practical)	Prerequisites
316	Statistics in Librarianship and Information Science*	–	34	–	–
322	Principles and Methods in Independent Studies	2	17	17	–
339	Management of Libraries and Information Centers	2	34	–	–
343	Management of Organizational Behaviors	2	34	–	–
344	Management of Knowledge and Information	–	34	–	301
345	Evaluation of Information Services and Systems	2	34	–	339
346	Principles of Website Management and Design for Libraries and Information Centers*	2	34	17	342, 334
347	Principles and Methods in Teaching Information Literacy	2	34	–	301
348	Globalization and Information Society	2	34	–	301
349	Communication & Informology	2	34	–	301

* Students are advised to pass these courses.

Table 5: Specialized optional courses for the sub-discipline of Information Technology Management (8 credits must be passed).

Course Code	Course Name	Credit(s)	Hours (Theoretical)	Hours (Practical)	Prerequisites
316	Statistics in Librarianship and Information Science*	2	34	–	–
322	Principles and Methods in Independent Studies	2	17	17	–
336	Data Processing	2	34	–	–
346	Principles of Website Management and Design for Libraries and Information Centers*	2	34	–	342, 334
350	Design and Management of Information Systems and Databases	2	34	17	334
351	Digital libraries	2	34	–	342

Table 6: List of supplementary courses for both sub-disciplines (8 credits)

Course Code	Course Name	Credit(s)	Hours (Theoretical)	Hours (Practical)	Prerequisites
316	Research Seminar	2	34	–	–
322	Internship	2	–	136	–
336	Thesis	4	–	–	–

Table 7: Compensatory courses for both sub-disciplines (5 credits).

Course Code	Course Name	Credit(s)	Hours (Theoretical)	Hours (Practical)	Prerequisites
316	Material Classification	3	34	34	-
322	Reference works	2	20	14	-

* Only for those having a B.A. degree other than Librarianship.

As can be seen in Tables 2-7, the courses proposed have been arranged in such a way as to equip students with expected skills and capabilities. In other words, in the new curriculum two points have been emphasized:

1. Strengthening theoretical foundations of Librarianship and Information Science.
2. Creating practical skills particularly in the area of applying new technologies needed.

CONCLUSIONS

The higher education system of Iran has characteristics that make it distinct from systems of education at elementary and high school levels. One distinctive point about higher education is its flexibility and ability to change based on social, economic, political and technological changes and needs of the society. This flexibility may differ from major to major. Some disciplines change or modify themselves to stay in line with the current needs of society. They may even use predictions about the future needs and by this they will have a better chance for survival. In contrast these disciplines that resist against any change and do not take into consideration the current and future needs of the society will only have a marginal chance for survival.

The abundant changes resulting from the emergence of new technologies and the variety of needs of the society have encouraged outstanding professors of Librarianship and Information Science of Iran to issue their views on the content, methods, educational system, etc. of this discipline. Such views have already been published in journals, books, conference proceedings, etc. and have emphasized the need for revising the curriculum of Librarianship and Information Science.

Focusing on proposing new educational programs that can meet the current needs of Iran must be taken as a positive point of our educational system. This paved the way for proposing a new curriculum for Librarianship and Information Science at M.A. level; because, graduate students of this level are expected to manage libraries and make creative use of information management and information technology and therefore have a high rank in the educational system of Librarianship in Iran. Based on the above points, the researchers worked on and proposed a new curriculum that would be appropriate for students at M.A. level and would meet the needs of the society.

As is clear from the courses and the syllabus proposed, the new program relies heavily onto two points:

1. Use of suitable textbooks.
2. The need for instructors to keep themselves abreast of the newest theoretical and practical knowledge.

The second point reiterates that if we are to train capable students, we are in need of capable and knowledgeable instructors. We, the proposers of the new program, believe that this new curriculum will not be implemented successfully unless faculty members of the departments of Librarianship and Information Science change their current methods – they must equip themselves with the newest knowledge in the area. Finally, our proposed program embodies three fundamental changes: (1) changes in the content of the curriculum, (2) changes in the textbooks and (3) changes in the knowledge of instructors of Librarianship and Information Science.

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